

What is claimed is:

1. A flexible manufacturing system for producing and packaging consumer products into different packages, comprising:
 - (a) one or more supplying means for providing said consumer products;
 - (b) a multiplicity of packaging means for packaging said consumer products into different packages;
 - (c) one or more conveying means for conveying said consumer products from said supplying means to said packaging means, said conveying means forming a continuous path linking said one or more supplying means with said multiplicity of packaging means, said continuous path comprising a multiplicity of receptors, wherein each of said receptors is capable of accepting, carrying, and discharging a consumer product; and
 - (d) one or more stacking means for arranging said consumer products into separate stacks for packaging, said one or more stacking means being disposed vertically between said one or more supplying means and said multiplicity of packaging means.
2. The flexible manufacturing system of claim 1 wherein said one or more supplying means comprises a production line capable of producing said consumer products.
3. The flexible manufacturing system of claim 1 wherein said multiplicity of packaging means comprises a packaging apparatus capable of packaging said consumer products.
4. The flexible manufacturing system of claim 3 wherein said packaging apparatus is a bag packaging apparatus, a soft pack packaging apparatus, a pouch packaging apparatus, a box packaging apparatus, or a wrap packaging apparatus.
5. The flexible manufacturing system of claim 1 wherein said receptors utilize means selected from the group consisting of gripping means, vacuum means, magnetic means, electromagnetic means, electrostatic means, and any combination thereof.
6. The flexible manufacturing system of claim 1 wherein said receptors comprise a multiplicity of gripping receptors.
7. The flexible manufacturing of claim 1 wherein said continuous path further comprises a chain.
8. The flexible manufacturing system of claim 1 wherein said one or more conveying means further comprises one or more pickup station for picking up said consumer

products at said supplying means and a multiplicity of release station for releasing said consumer products.

9. The flexible manufacturing system of claim 1 wherein said consumer products are feminine sanitary napkins, feminine tampons, feminine incontinence articles, baby fastening diapers, baby pull-on diapers, baby swim pants, adult incontinence pads; baby bibs, baby wipes, adult wipes, or household cleaning wipes.
10. The flexible manufacturing system of claim 1 wherein said consumer products are the same products or different products.
11. The flexible manufacturing system of claim 1 wherein the continuous path is a moving path or a stationary path.
12. The flexible manufacturing system of claim 1 wherein said one or more stacking means comprises:
 - (a) a first descending means disposed at the outmost vertical position of said stacking means, for receiving said pad-like products at a releasing station disposed at said continuous path of said releasing means, and for maintaining a horizontal orientation of said pad-like products;
 - (b) a second descending means disposed adjacent below said first descending means, for maintaining said horizontal orientation of said pad-like products descending from said first descending means and for delivering said pad-like products into a pickup position;
 - (c) a rotary drum disposed adjacent below said second descending means, for transferring the pad-like products from said pickup position to a stacking position;
 - (d) a bar conveyor disposed adjacent said stacking position, for accumulating a stack of said pad-like products; and
 - (e) an overhead conveyor disposed adjacent and perpendicularly to said bar conveyor for accumulating one or more said stack of said pad-like products and for supplying said one or more stack of said pad-like products to said packaging means for packaging into said package.
13. The flexible manufacturing system of claim 12 wherein said first descending means comprises a belt including a multiplicity of prongs.

14. The flexible manufacturing system of claim 12 wherein said second descending means comprises a multiplicity of paddles capable of pivoting between a horizontal position and a vertical position.
15. The flexible manufacturing system of claim 12 wherein said rotary drum is a vacuum drum.
16. The flexible manufacturing system of claim 1 further comprising one or more additional process operations, the additional process operations being selected from the group consisting of a label-attaching device and a printing device.
17. The flexible manufacturing system of claim 16 wherein said printing device comprises an ink-jet printer.
18. A flexible manufacturing system for producing and packaging pad-like products into different packages, comprising:
 - (a) one or more supplying means for providing said pad-like products, said pad-like products being suitable for packaging;
 - (b) a multiplicity of packaging means for packaging said pad-like products into different packages;
 - (c) one or more conveying means for conveying said pad-like products from said supplying means to said packaging means, said conveying means forming a continuous path linking said one or more supplying means with said multiplicity of packaging means, said continuous path comprising a multiplicity of receptors, wherein each of said receptors is capable of accepting, carrying, and discharging a pad-like product; and
 - (d) a multiplicity of stacking means for arranging said pad-like products into separate stacks for packaging, said multiplicity of stacking means being disposed vertically between said one or more supplying means and said multiplicity of packaging means, at least one of said multiplicity of stacking means comprising:
 - a. a first descending means disposed at the outmost vertical position of said stacking means, for receiving said pad-like products at a releasing station disposed at said continuous path of said releasing means, and for maintaining a horizontal orientation of said pad-like products;

- b. a second descending means disposed adjacent below said first descending means, for maintaining said horizontal orientation of said pad-like products descending from said first descending means and for delivering said pad-like products into a pickup position;
- c. a rotary drum disposed adjacent below said second descending means, for transferring the pad-like products from said pickup position to a stacking position;
- d. a bar conveyor disposed adjacent said stacking position, for accumulating a stack of said pad-like products; and
- e. an overhead conveyor disposed adjacent and perpendicularly to said bar conveyor for accumulating one or more said stack of said pad-like products and for supplying said one or more stack of said pad-like products to said packaging means for packaging into said package.